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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,364

10/25/2005

Alan Richard Reece

1031-25

6975

7590 09/17/2008
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EXAMINER

STORMER, RUSSELL D

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

09/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,364	Applicant(s) REECE, ALAN RICHARD	
	Examiner Russell D. Stormer	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9, and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 9, 2008 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-9, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each of claims 1 and 11, the limitation of “when said first coupling device is engaged” is indefinite as the claim does not disclose which element is engaged by coupling device.

In claims 1 and 11, the at least one second coupling device is set forth as being “connected between... for preventing radial displacement.” The claims are indefinite because it is not clear which elements are prevented from such radial displacement.

The second support plate is claimed as being mounted to an axle. In claim 7, the second support plate is recited as being mounted to a gearbox which is mounted to the

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axle. Claim 7 is therefore indefinite as to whether the second support plate is mounted to the axle or a gearbox. Moreover, it is not clear how the second support plate could be mounted to both an axle and a gearbox, while the gearbox is mounted to the same axle.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 5, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Codd (newly cited).

Codd discloses a wheel assembly comprising a rim 17 supporting a tire, a first support plate 21 mounted to the rim, a second support plate 3 mounted to an axle, at least one first coupling device 12 connected between and transferring torque between the first and second plates, and at least one second coupling device 31 connected between the first and second plates and preventing radial displacement of the first plate relative to the second plate, whereby prevention of the radial displacement of the first support plate relative to the second support plate is independent of the first coupling. A securing device 5 secures the assembly to the axle.

The first coupling device includes at least one body member 12, at least one first engaging device or linkage 15 enabling the body to slide or pivot in a first direction relative to the first support plate, and at least one second engaging device or linkage 13 enabling the body to slide or pivot in a second direction. As constructed, the first engaging device 15 can move or slide or pivot in a radial direction to the wheel's axis, and also can move or slide or pivot in a circumferential direction around the axis. Therefore, the body member 12 can move in a second direction not parallel to the first direction.

With respect to claims 5 and 6, the second coupling device 31 includes at least one member 32 would have a load limit beyond which it would break as a result of radial or axial forces exceeding a predetermined level. If multiple devices 31 and members 32 were used, the weakest one of them would fail first, and then the others would fail as a result when the load limit was exceeded. While this might not seem likely, the wheel assembly and the at least one second coupling device 31 are capable of failing or fracturing in this manner and therefore meet the limitations of claims 5 and 6.

Claims 1, 7, 8, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown (previously cited; newly applied).

Brown discloses a vehicle comprising a chassis, a wheel assembly having a rim supporting a tire, a first support plate 56 mounted to the rim, a second support plate 36 mounted to an axle, at least one first coupling device 68 connected between and transferring torque between the first and second plates, and at least one second

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coupling device 16 connected between the first and second plates at the threaded connection 72a, 72b. When the second coupling device 16 is tightened and the first support plate 56 urged against the second support plate 36, the second coupling device will prevent radial displacement of the first plate relative to the second plate. The first coupling devices 68 transmit torque, and from lines 56-62 of column 3 of Brown do not appear to be designed to help support the weight of the vehicle, and therefore do not appreciably prevent relative radial displacement of the first plate to the second plate. Regardless, the first coupling device and the second coupling device are discreet elements having different functions, and therefore prevention of the radial displacement of the first support plate relative to the second support plate by the second coupling device 16 is independent of the first coupling.

At least one removable securing device 34 secures the assembly to the axle.

With respect to claim 7, the vehicle includes a gear assembly within the hub of the wheel, and therefore the second plate can be considered to be mounted to a gearbox mounted on the axle.

With respect to claim 8, the second support plate 36' may define a region of decreasing cross section in a direction transverse to the axle as shown in figure 8.

With respect to claim 11, the vehicle of Brown is described as a forklift. The forklift is shown in figure 1, and a seat and controls are shown in what would be the cab.

Response to Arguments

Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new grounds of rejection.

Although the Weiss, Kuhlman, and Hayashi references are no longer applied against the claims, some of the points argued by Applicant must be addressed inasmuch as at least some of these arguments could also be applied to the rejections set forth above.

The arguments specific to Weiss are directed to the transfer of torque between the first and second support plates of Weiss and the manner in which they are coupled. Applicant argues that the intermeshing teeth 5, 12 of the plates 17, 3 would contribute to preventing radial displacement of the hub or second plate 17 of Weiss and therefore the prevention of radial displacement of the first support plate relative to the second support plate is not independent of the first coupling device.

It is agreed that the intermeshing of the teeth 5, 12 of the plates would contribute to the prevention of relative radial displacement between the plates. However, the teeth 5, 12 are very similar to the keys 14, 15, 22, and 23, and their intermeshing in the slots 16, 17, 19, and 20 in that torque is transferred from one plate to another. The argument that the connection or intermeshing of the second coupling is incapable of transferring radial forces when the forces exceed a predetermined limit is noted, but as the structure is disclosed it would appear that this would depend on the orientation of the wheel at the time of the excessive radial forces. Further, as now claimed, the second coupling device does not transfer radial and axial forces from the first plate to the second plate,

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has no means to prevent radial displacement, and the limitation that it is incapable of transferring radial forces *when the forces exceed a predetermined level* do not define the invention over the prior art as argued because all torque transferring connections would have a predetermined level at which they were incapable of transferring radial forces. moreover, the limitations in claims 1 and 11 defining the second coupling device, and the limitation of the prevention of radial displacement being independent of the first coupling device do not preclude the first coupling device from preventing radial displacement.

The argument that Weiss does not account for protecting personal or an explosion under the wheel is irrelevant as this is not claimed.

Similar arguments are presented against the Kulhman and Hayashi references, and the comments above address such arguments.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show additional wheel coupling devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Russell D. Stormer/
Primary Examiner, Art Unit 3617